MANAGEMENT

APM Project
Management
Qualification

Sample Answer Document

Introduction

This document is designed to support candidates preparing to undertake the APM Project Management Qualification by providing insight into the level of depth required in answers when undertaking the examination.

Examples within this document demonstrate strong passing answers and weak failing answers against 10 questions. These answers are 'example' answers and in no way should be used as "model answers" for the APM Project Management Qualification examination.

We don't want candidates to get the impression that there is only one way to answer and score highly within a question. This is why we would like to stress that the strong passing answers and weak failing answers provided are 'example' answers and not 'model answers'.

The majority of the example answers included in this document are answers submitted by candidates who have taken the APM Project Management Qualification (7th Edition). However some answers have been provided by subject matter experts under exam style conditions. At the bottom of each answer is an indication as to where it came from.

How is the APM Project Management Qualification marked?

The APM Project Management Qualification focuses on candidates demonstrating their level of understanding of the subject matter. It's the demonstration of this understanding within the context of the question posed, which results in the awarding of available marks to a candidate's examination script.

This section gives a high-level understanding of how APM Project Management Qualification examination markers award marks against candidate's scripts.

Marks are awarded using a combination of the following documents:

- APM Project Management Qualification Marking Guidance;
- APM Project Management Qualification Command Verbs;
- APM Project Management Qualification Marking Criteria Grids.

Only the APM Project Management Qualification Command Verbs are available to candidates and accredited training providers (as shown within the APM Project Management Qualification syllabus). This provides candidates further indication as to the level of depth and understanding they should be covering within their answers for the examination questions.

The APM Project Management Qualification Marking Guidance was developed by expanding upon our publicly available Indicative Content.

The marking guidance is used when applying marks to a candidate's answer. The marking guidance provides our markers with clarity on the level of understanding candidates should provide when answering the questions.

Within the APM Project Management Qualification Marking Criteria Grids, we have two marking grids. One is covered by 0–10 and one covers 0–5. High level examples can be found below. The marking criteria grids used by our markers contain a greater amount of detail.

0 marks
No understanding
1–2 marks
Very little understanding
3–5 marks
Some understanding
6–7 marks
Understanding
8–10 marks
Complete understanding

0 marks
No understanding
1–2 marks
Very little understanding
3–4 marks
Understanding
5 marks
Complete understanding

Sample answers to APM Project Management Qualification examination questions

Question 1

Learning outcome   Understand the principles of leadership and teamwork.

Question part (a)   <u>Explain two</u> reasons for applying a situational leadership approach when managing a project.

Marks   20 marks (10 marks each)

Strong example answer

> The project manager may change leadership styles if the team are diverse and vary in terms of skills and experience. The project manager may act more as a coach to someone in the team who is new to the organisation or lacks the skill of someone who has been doing the same job for a long time and has a 'senior' status. Equally the project manager may not feel the need to micro-manage or be as closely monitoring someone who does have that knowledge and experience. Accommodating the various skillsets and experiences within the team can demonstrate that the project manager has confidence in his team and is committed to ensuring they are able to deliver their tasks or objectives.
>
> If a project is not progressing as expected, maybe they are behind schedule for example, the project manager may decide to change to a more authoritative leadership style and become more direct in his expectations from the team producing the work. Doing this may boost team motivation as they become more aware that they should look to support the PM in his goal to meeting the project go-live date. This may cause conflict in the team, especially if the project manager has not controlled the risks surrounding the project and that is why the project team are behind schedule. If there is time in the schedule to recover then a more democratic approach may get better results.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Weak example answer

> It can be important for applying a situational leadership approach in a project at the beginning of the definition stage of the project. Leaders are visionaries and looked up to, through applying this approach you can inspire the team early on in the process, giving them not only confidence in the project but confidence in the person leading them through the project from start to finish. With this they are more likely to want to work for you and less like to drag their feet.
>
> Through applying a situational leadership approach it allows you to also adapt your method for different situations, for example in the deployment stage you may be more strict as work is to a tight timeframe, an example of a leadership approach is Maslows Hierarchy of needs, which allows one to identify what someone is needing.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Question part (b)   Using a recognised model, <u>explain three</u> distinct stages of team development.

Marks   30 marks (10 marks each)

Strong example answer

Forming, the first stage in the team development model is where the team is first brought together. In this stage they are unsure of their place in the team, they are trying to work out the goal for the project & how they can help deliver it and also they are working on trying to understand the other members of the team & their skills. This important so as to start the team with the right grounding as the manager. Through this stage the team members will start to work on the project and its deliverable.

Norming, this is there the team first start to understand the project, its objectives & deliverable's, but also understand their place within the project/team. The team however are still not working as a team but still as a group. They will start at this stage to have a higher level of team dynamic and performance but still quite individual in nature. The project manager at this stage will still be more transactional in nature rather than later on in the team development model where the PM will be more transformation in their approach.

Performing, this is the fourth stage in the model where the team have started to perform, they are working as a coherent unit where they deliver in excess of the sum of their individual parts. They are able to work cohesively as a team and deliver their best work. It is this stage that the team leader/PM is trying to get the team to perform as quickly as possible. Importantly in this stage the team have a singular goal which they all are focused on. They become a team rather than a group of individuals.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Forming – This is the stage where the project team is being put together. As a project manager you will identify what resource and skill you require and them form a team based on these Skills.

Storming – when the team has been assembled it can often be that the team members do not know each other or may have history with the other members. As this stage there can be conflict or personality clashes. The Project manager will have the responsibility to ensure this is resolved, settles and that everyone is working for the good of the project.

Norming – at this stage the team are starting to settle in and getting to know each other. They will start to progress the project and working to ensure the deliverables and outcomes are met. there can still be some conflict at this stage and the Project manager has the responsibility to manage this issue.

(completed by a candidate taking a live paper under exam conditions)

Question 2

Learning outcome   Understand project scope management.

Question part (a)   <u>Explain</u> each of the following <u>two</u> stages in a typical change control process:

- ■ Request for change
- ■ Recommendation

Marks   20 marks (10 marks each)

Strong example answer

> Request for change: A change request may occur if there are change in circumstances or if additional tasks/objectives need to be considered as part of the project which in return may impact the project schedule and budget. Anyone is eligible to raise a change request as this is the beginning of the process where the PM will input the change on the change log, it will carry an associated ID, high-level details of the change, who that raised it, before it can be further evaluated. This step is to ensure that any applicable changes to the project is raised and captured with some detail, so that the change control process can be applied. The change log can then be updated as the change is tracked through the process.
>
> Recommendation: Once a change is evaluated, there are options in terms of how to address the change. The project may either accept the change (add it to the scope of the project and re-baseline) which can be approved by the project sponsor; reject the request (if it is not financially viable, add any value in terms of benefits documented in the business case, or potentially carries a high level of risk to the project objectives) and lastly defer (where this may be escalated to the sponsor for further discussion at a more appropriate time). This step in the process would see the project manager seek authorisation from the project sponsor on the agreed way forward and gives confidence that the right approach will be taken to deal with the change request.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Weak example answer

> A request for change is a request to provide a different product or solution to what is already being used. An example could be software that is being used on the project to design a new building. The software may not be up to the standard required for the task so the end user (or another member of the project team/manger) would raise a request for change to upgrade or replace the software being used.
>
> A recommendation would be made by the person raising the request for change as what they see as the best solution for the problem. A computer network engineer may well be a subject matter expert within his/her field, so it is well within their rights to recommend what they see as the best product to fit the purpose of the task. Although they may provide a recommendation it may not always be seen as the best business decision due to cost or time constraints of the project.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Question part (b)   <u>Explain three</u> factors that should be considered when defining a project's scope.

Marks   30 marks (10 marks each)

Strong example answer

One factor would be time. When you are going through the project scope you need to include items that will fit inside the time you have been given. For example, if a stakeholder in a car building project wanted technology inside the car that is yet to be released you may not include it in the scope of your project. This is because your project may not want a dependency on an external organisation to create the technology for your project to then use. If they had delays this would have a knock on impact on your project. You would have included timescales in your business case which would have been baselined and you would be trying your best to stick to it.

Another factor is cost. In your business case you would have outlined the key deliverables that you are going to complete. You will have a set budget that you have been given and whilst budgets can be amended after they have been baselined you would still refuse any scope creep if it was too expensive. One example is if your project had a £10M budget and you had expected costs of £10M you would not add an item of work into your scope that would further exceed this budget. The only reason you would is if the analysis displayed the benefits of adding one further item would exceed the current benefits by more than the new item would cost. This would have to be presented to the project sponsor for them to make the ultimate decision.

Quality. You would have a quality management and control plan that has defined the expected quality of the system your project team is going to develop. If one item in the scope does not meet this quality criteria then it could be excluded from the scope. An example would be if you were building a house and the requirements told you the depth and size of bricks to use but there was a cheaper alternative slightly smaller than required you would not just use the new brick because it is cheaper. If you did your project would fall short on quality expectations. In this example, you could clarify the request with the originator because your requirements would detail the person who wanted this as a requirement for tracking purposes.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

i – The first factor that should be considering the project scope is resource. The project manager needs to know if the project has the available resource in order to complete the scope of work that has been defined. They need to know if they are trained to undertake the work, if not, what are the training requirements and can the training be completed before the output needs to be delivered. They also need to be conscious of the materials that are needed and potential import implications.

ii – The second factor should be the constraints and risks on the project. This can be identified using the PESTLE (political, economical, sociological, technology, legal and environmental) and SWOT (Strength, weaknesses, opportunities and threats) techniques. The project manager would use these techniques in workshops with other stakeholders to identify the internal and external factors that would influence the project. It's within these workshops, that are normally conducted during the definition phase, that assumptions and risks would form to help determine the scope.

iii – The third factor that should be considered is initial investments. The project manager needs to determine if the funds are available to obtain certain items of machinery or training staff in order to complete the packages of work in the scope. The scope might change if the budget isn't available at the time to support these elements. The sponsor would need to be informed to investigate if the budget is obtainable to release to the project.

(completed by a candidate taking a live paper under exam conditions)

Question 3

Learning outcome   Understand how organisations and projects are structured.

Question part (a)   <u>Describe one</u> responsibility within a project for each of the following project roles:

- Project team members
- Product owner

Marks   20 marks (10 marks each)

Strong example answer

Project team members:

The team members are the dedicated project resources and SME's on the project. They must deliver on time (highlighted in the schedule), at cost (highlighted in the budget) and to quality specifications (as per the requirements and scope baseline). The team members are can be seen as the 'do-ers' who would for example, carry out the physical construction work or actually develop a new application as part of a projects objective. The team members activities are typically more prevalent during the deployment phase of a linear lifecycle, when the project has gained approval to actually start conducting the work.

Product Owner

It is the product owners role to interpret the needs of the user. The product owners are often seen in the iterative lifecycle, as this is a cycle where the project is delivering a minimal viable product, before it is reviewed, and then subsequently improved in future sprints/chunks of work. Often users of the product, the product owners are the key interface between the end-user community and the project, so it is important that they understand the requirements of the user, and translate them in a way of which the project team can then work on. They define the scope of work and prioritise activities for the each iteration.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Project Team Members is responsible for risks in their project activities and tasks. For example, they will report to the Project Manager assist the project manager on task laid out in the communication and business plan.

Project User is responsible for the goals and vision of the project and work closely with the Project Sponsor to make sure that the Business plan activities and tasks are achieved.

(completed by a candidate taking a live paper under exam conditions)

Question part (b) <u>Describe three</u> functions, and their benefits, of an embedded project management office.

Marks 30 marks (10 marks each)

Strong example answer

An embedded project management office (PMO) sits under programme management in an organisation and often used by larger projects only as they are the only ones able to afford the expert advice on offer. An embedded PMO delivers best practice guidance to project managers based on organisational standards. UK corporate governance laws dictate that organisations must have standard processes in project management that all projects adhere to. Therefore, by giving out best practice guidance on topics such as risk and issue management and how to complete change control documents, the PMO is ensuring that the organisation is compliant with the law. Also, more effective project management through best practice guidance increases the chances of a successful project, leading to a more profitable outcome for the organisation.

The PMO is made up of experts in specific project management tasks, for example, estimators, schedulers and risk managers. Project managers can consult with these experts to solve problems in their own projects and ensure that they are as successful as possible when managing risks, for example. More accurate risk management could mean that risks are analysed with more uniformity in keeping with the organisations risk appetite. Therefore, threats will not be underestimated that they could terminate the project prematurely. It would also prevent risky projects from proceeding and ensure that risks could be taken by the organisation with more awareness of consequences.

Finally, the PMO shares guidance on knowledge and information management policies in the organisation. This is beneficial because it ensures that information is stored securely and in compliance with UK laws such as the official secrets act and GDPR. However, it also optimises organisational costs and resources by encouraging curation and archiving. The most memory-efficient ways to store data are shared so that the organisation has to spend less money on data storage. Also, lessons learned and other important documents are more easy to find and an organisation can ensure that it is not repeating a historical project because it has lost the original data collected. Therefore, the PMO can help facilitate the organisation by encouraging better knowledge and information management in project managers.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

1. Communication, keeps the company informed on how the project is going, any changes to company processes and systems.

2. Resources, able to use resources in the company, team members, to action the project, saving on bringing in people into company cost time and money to recruit.

3. Budget, able to run serval projects at once with the resources in the company, meaning business as usual.

(completed by a candidate taking a live paper under exam conditions)

Question 4

Learning outcome	Understand project lifecycles.
Question part (a)	<u>Outline four</u> ways in which outputs of knowledge management informs decision making.
Marks	20 Marks (5 marks each)

Strong example answer

> - By consulting an organisational lessons learnt register, the project manager can use the experience from similar projects to avoid potential issues and mitigate risks.
>
> - Encouraging the project team to share experience and expertise ensures that decisions are made with all of the relevant information available.
>
> - Ensuring that there are clearly documented processes and procedures as part of the project can be used to decide what resources are required to deliver when transitioning to Business As Usual.
>
> - Utilising best practice resources, e.g. published standards, in order to make decisions based on the benefit of external expertise and experience.
>
> *(completed by a subject matter expert within exam like conditions)*

Weak example answer

> - A lessons learnt register from previous projects can inform a current project in supporting decision making.
>
> - A search for information (including online) about a topic that is not understood within the project can support decision making.
>
> - Engaging an SME to provide critical analysis on a topic can support the project decision making.
>
> - Previous experience of the stakeholder community can be used to support project decision making.
>
> *(completed by a subject matter expert within exam like conditions)*

Question part (b)   Explain how the following <u>differ</u> between a project life cycle and an extended life cycle:

   ■   Scope planning
   ■   Benefits planning
   ■   Financial planning

Marks   30 marks (10 marks each)

Strong example answer

Scope planning will look at the overall detail of the project. the extended lifecycle will include the operations phase, the benefits realisation and the termination of the project. When scoping out a project the timeline associated with each of these additional stages will need to be planned for. This could include additional life cycle maintenance requirements throughout the operational phase. The scope of these works and the organisation required to carry them out will need to be included in the original scope document. The project life cycle scope planning would not include this additional detail, it would end once the handover process to operations has taken place and all documentation and lessons learned have been extracted and documented.

Benefits planning for the extended life cycle will need to look at the benefits realisation of the project. This will include a benefits realisation review carried out once the project manager has finished, all documentation has been handed over, all training requirement for operations has been completed and all lessons learned has been extracted. This is the responsibility of the project sponsor and the results will be passed onto the project board and stakeholders. The benefits planning of the project life cycle would end once the operations phase has commenced but for the extended life cycle the benefits model will continue to include the operational benefits.

Financial planning for the extended life cycle will also include the costs associated with the operational phase, this may include manpower, maintenance requirements, spare parts, tooling and the eventual decommissioning and removal or destruction of the project. In the case of offshore wind this will also include the removal of all infrastructure and return of the land or seabed to the original condition. These decommissioning costs can provide a large unforeseen cost to the financial planning should they not be foreseen at the scoping stage. The financial planning for the project life cycle will only include costs associated up until the handover of the project.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Scope planning: the scope planning for a project life cycle would only cover the delivery of the product at the end of the deployment phase, while for an extended life cycle, this would include planning that includes the adoption and benefit realization after the product is delivered.

Benefits planning: this would not be include in the execution of the project life cycle but essential during the concept and definition phase of an extended life cycle.

Financial planning: the cost of adoption of a product would be reflected on an extended life cycle but not typically on a project life cycle.

(completed by a candidate taking a live paper under exam conditions)

Question 5

Learning outcome   Understand risk and issue management in the context of project management.

Question part (a)   Explain two stages in a typical risk management process.

Marks   20 marks (10 marks each)

Strong example answer

Identify – In this stage the project manager will work with the team leaders and team members to identify risks (threats and opportunities). Risks must be clearly defined with cause, a description of the event and any consequences. Clearly defining these three parts of the risk will improve quality and clarity allowing for better risk management moving forward. This stage will first take place in the concept phase of a project. (Although risk management is an ongoing process, so this may happen multiple times during a projects duration).

Analyse – In this stage of the risk management process the project manager will work with the team again to assess each risk on a probability/impact matrix. This will allow each risk to be given a quantifiable score. Often this may be colour coded with risks scoring highly in both probability and impact showing as red, those scoring moderately amber and those scoring low green. This allows the project manager to be able to make decisions about the best approach to manage the risk/opportunity moving forward. (i.e. Treat, tolerate, transfer, exploit, terminate). This analysis will often focus on time and cost impacts, but may also consider things like public image, etc.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Assessing and Reviewing are two key stages of a risk management process.

During the assessment stage, the project manager is able to assess each risk and understand what the impact potential of that risk is. During the risk assessment, it is important to consider all of influencing factors and what may happen as a result.

During the review stage, the project manager is responsible for identifying whether the level of risk has changed and detailing the reasons for any changes. During a review, the effectiveness of any control factors or mitigations may be realised.

(completed by a candidate taking a live paper under exam conditions)

Question part (b)   Explain three responses to a threat.
Marks   30 marks (10 marks each)

Strong example answer

Eliminating a threat by choosing an alternative approach to solving a problem. Elimination ensures that this particular risk will not occur, but may introduce new ones which will need to go through the same analysis process. Alternatives may bring about bigger threats, and therefore both should be considered together to determine the best approach. For example, the risk of not being able to complete an exam in person due to corona virus can be removed by taking it online.

Transfer the threat – insurance is a transfer of a financial threat away from the project and onto the insurer. A project can be insured against fire for example - in the event of a fire on a building site the cost of recovering the project might be paid by the insurance company. This is not a very flexible management response, and is not suited to most risks, but may permit a project to go ahead without doing anything additionally to reduce the risk. i.e. the threat of loss of revenue to a shipping company if their ship is wrecked, can be covered by the insurance. The financial impact to those people whose goods are being shipped can be covered in this way also, but not the impact to their schedules required by purchasing replacements.

Reduce – through managing a response within the project the impact of a threat being realised can be reduced. If there is a known risk that a power supply is faulty and therefore may fail, cutting all power to a factory, the factory may decided to enter a contractual agreement with a company to supply generators to the site within a given period of time. This wont remove the risk entirely as there will be some impact of losing power as the generators wont be on site immediately, but the factory will be able to operate again quickly, limiting the loss of production and therefore the impact of the event.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

3 responses to a threat are:

Treat – in a risk response treating a risk means that mitigations will be used to lessen the impact and probability of the risk. Mitigations and actions will have the specific role of reducing the threat and negative impact of the risk over time.

Tolerate – if the risk is tolerated this means that it is a known risk, has been accepted by the project manager/sponsor and will be tolerated as either the impact and probability is not that severe, there are no actions that can be taken to reduce the risk, or the cost of the risk is quite low.

Transfer – if the risk is transferred this means that the risk is avoided by doing something else, for example if there was a risk that your bus was going to be late, you could get a taxi, or in project terms put in an alternative solution so that the risk isn't realised as you have changed the solution where the risk was held.

(completed by a candidate taking a live paper under exam conditions)

Question 6

Learning outcome	Understand planning for success.
Question part (a)	<u>Interpret</u> the Earned Value information provided below for a project.

Given the likely schedule impact and cost estimation at completion, propose <u>two</u> practical responses the project manager could take and a justification for each.

A project has a budget at completion of £120 000 and is planned to be completed in 10 months. The table below shows the project's progress at the end of month 5:

Task Planned	Planned budget	Actual cost	Earned value
Total at month 5	£60 000	£40 000	£50 000

CPI = 1.25

SPI = 0.83

EAC = £96k

Planned time/SPI = 12 months

Marks   20 marks (10 marks each)

Strong example answer

The SPI is <1, so at the moment the project is behind the plan. Also from looking at the CPI 1.25, this is >1 which means that the project is earning more than it is spending, however it is spending less than what was expected in month 5. The PM could increase the number of resources on the project as there is budget available to do this, by doing this, the extra resources may increase the productivity further and the delay currently forecast may reduce. The resources added would need to be adequately skilled in order to immediately contribute to the project's productivity, sometime with more people productivity is reduced.

The project is forecast to complete in 12 months and not 10 months, however, it is also forecast to complete for £96K as opposed to the £120K budgeted, this appears to be quite a saving for the project. The PM should revisit the Business Case to understand the justification and priorities for the project and the benefits plan for the project. As it may be more beneficial to continue with the progress as currently projected, so saving £24K on the budget, which could be released back to the business. The PM would need to discuss this scenario with the sponsor in order to confirm that a cost saving would be preferred to on time delivery in this case, and if agreed, the change to the baseline should be captured via a change management process.

(completed by a subject matter expert within exam like conditions)

Weak example answer

The SPI is <1 and therefore the project is behind plan, with delivery forecast to take 12 months and not the planned 10 months. The PM could add more resources to try and recover the delay.

The Forecast cost at completion is estimated to be £96K which is less than the budget of £120K. The PM should check to see if there have been any unpaid invoices that could account for the current underspend against the plan.

(completed by a subject matter expert within exam like conditions)

Question part (b)   <u>Explain</u> each of the following, as part of the information management process:
- Collection
- Storage
- Dissemination

Marks   30 marks (10 marks each)

Strong example answer

Collection: Collection is where you identify what information will be collected, where it will be collected from, how it will be collected, in what formats will it be collected, when will it be collected, what file formats will we collect and how much information/files will there be. This formative step in the process is key as understanding the size, type and scale of the files that will be collected will potentially change how later stages are undertaken. This step is also crucial at ensuring that version control of documents is implemented.

Storage: Storage is the process of collating information in to one a usable format and system. For example electronic data can be put in to an online database that allows anyone from the project team to access the information at any time. It also details what to do with other formats like physical drawings in construction, for example these need to either have a process to scan them and enter them into a central database of they need to be appropriately filed and organised. This system during the lifetime of the project may need to be updated due to changes in technology and also needs appropriate user access rights so that unauthorised people cannot change information.

Dissemination: This is the process of bringing relevant information together and sending it out to the relevant parties and stakeholders who require the information to enable them to make effective decisions. For example weekly or monthly reports on changes and updates to the formation management system can be done and sent out to relevant stakeholders so they understand what changes have been made and therefor progress. In simple terms it is the process of giving the right information to the right people at the right time to allow them to make appropriate decisions based on the information provided.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Collection
As part of the Information management, how date is going to be converted into information, by the collection of documentation that is relevant to the project. Needs to determine, what information is worth collecting, for what purposes, objectives

Storage
As part of the information management, how the information is going to be storage, by archives, electronic devices. Period of time of storage. Where will be allocated.

Dissemination
How the information is going to be shared, distributed, considered in the communication plan. How is going to have access to this information, in what terms.

(completed by a candidate taking a live paper under exam conditions)

Question 7

Learning outcome Understand communication within project management.

Question part (a) <u>State four</u> sources of conflict within a project.

Marks 20 marks (5 marks each)

Strong example answer

- Personality clashes where two members in a team have different views on life and clash because of this.

- Resource availability (or lack of) where the project manager needs resources, but they are busy on functional work.

- Pricing the cost of changes on a fixed price contract where the contractor says it will cost a certain amount, but the client disagrees.

- Agreeing on requirements at the outset as some stakeholders view some requirements as mandatory, but others just view them as 'nice to have.'

(completed by a subject matter expert within exam like conditions)

Weak example answer

1. Project participants not following the project manager's instructions

2. Not understanding the project's objectives

3. Not agreeing the project's objectives

4. Not being awarded the budget requested

(completed by a subject matter expert within exam like conditions)

Question part (b)   Using an appropriate model or approach, <u>explain three</u> ways in which conflict can be addressed.

Marks   30 marks (10 marks each)

Strong example answer

The Thomas-Killman method of addressing conflict used different approaches based on the level of assertion or co-operation that the specific situation required. The following are 3 of the 5 methods from the Thomas-Killman model:

1.   Accommodate – can be used when low assertion and high co-operation are required. This approach is akin to a "kill them with kindness" situation. An accommodating approach should be used when the individual you are in conflict with has strong views on their solution and you have no issues with bowing down to their views. This can be useful when the individual is a subject matter expert in the relevant field. For example a junior project manager may come into a team comprised of experienced individuals. The project team may have a view on the processes that should be used to achieve the outcome and the project manager may take an accommodating approach and utilise the project team's experience and implement this approach.

2.   Compete – a competing approach is useful when you need to get instant acceptance to your approach. This is an assertive approach where cooperation is not required. A competing approach can be useful in a military scenario where a leader requires instant acceptance of their approach from their team and cannot compromise or co-operate to establish the right way ahead.

3.   Collaborate – a collaborative approach is useful when you and team members both have a strong vision of what should happen. Collaboration requires strong assertion but also strong co-operation from the project manager. By collaborating you can create an environment where the best techniques from both parties suggestions are taken forward and the collaborative approach is agreed and accepted by all involved. An example of using a collaborative approach would be where two interior designers disagree over the configuration of a hotel room. Collaboration would allow the best of both scenarios taken forward.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Collaborate – win/win – reach an agreement that both parties benefit from, a joint solution. This will strengthen the relationship, trust between both parties.

Accommodate – used for something that has a low value to one of the party, in return it is expected that the other party owns a favour. this favour may be used when something more valuable to the business is non negotiable and the favour will be used to achieve a win/lose outcome.

Compromise – come to a solution that both parties need to give something up to achieve resolution that does not fully satisfy either party.

(completed by a candidate taking a live paper under exam conditions)

Question 8

Learning outcome	Understand project procurement.
Question part (a)	Explain <u>two differences</u> between a transactional and collaborative contractual relationship.
Marks	20 marks (10 marks each)

Strong example answer

A first difference between a transactional and collaborative contractual relationship is that often in transactional relationships, the focus is on satisfying the terms as dictated by the contract. In comparison a collaborative relationship may be more willing to adjust expectations, to the benefit of the overarching relationship. Building relationships, working together and operating as a unit are much more important in a collaborative contractual relationship.

A second difference is that collaborative contractual relationships will rely heavily on informal, discussion based approaches to resolving conflicts and solving problems. A transactional relationship will rely on the contract, conditions, terms and wording to resolve disputes. Conflicts will be solved by what is formally documented, as opposed to in an informal approach as is the case with collaborative contractual relationships.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

Transaction – A transactional contractual relationship is where you are getting a service or product as part of the agreement. For example you may need to buy 500 bricks for building a house therefore this is a transactional contractual agreement where the supplier is bound by contract to supply 500 bricks by a particular date and for a specific cost. Its a supplier/buyer type relationship

Collaborative – A collaborative contractual relationship is where the parties involved in the relationship are both benefiting. For example there may well be a tangible or intangible benefit to the relationship. It could be the supplier gets more recognition through marketing by the organisation purchasing the goods or services.

(completed by a candidate taking a live paper under exam conditions)

Question part (b)   Explain three reasons why a robust procurement strategy is important.

Marks   30 marks (10 marks each)

Strong example answer

A robust procurement strategy is important because:

1. It will ensure that the project can procure its products and services from the best supplier which will enhance the quality of delivered outputs and ensure appropriate use of committed funds. The strategy, by way of defining a process for supplier selection will ensure that the supplier chosen is the best fit for the work, delivering to the timescales and costs agreed.

2. It will have driven consideration of whether the organisation should make or buy the goods or services themselves. This will mean that the project has evaluated whether the skills are available within their organisation to do the work themselves or whether they should buy in the work, cost of make vs buy will also be considered as well as the availability of the resources. Whatever decision is made, it should be captured in the procurement strategy and if the decision is to buy the strategy can be used to alert the procurement function as to the requirement.

3. It will consider how to protect the project from unnecessary risk. This will be done by understanding the type of contract that would be best for the project, eg if the scope is well defined then a Fixed Price Contracting model is better for the project with the supplier taking most of the risk. The strategy would also consider how many suppliers to use, eg single, multiple or integrated suppliers. By documenting these decisions in the procurement strategy for the project clarity of resourcing is understood by all stakeholders.

(completed by a candidate taking a live paper under exam conditions)

Weak example answer

A procurement strategy must be robust and it must be considered as early as possible on a project to avoid delays on long lead items or when negotiating contracts.

It also refers to the relevant procedures, standards and regulations to ensure adherence where it is required.

Negotiating and agreeing contracts forms the framework for financial success for a project, so a robust procurement strategy will ensure maximum benefit from the project. It also allows stakeholder confidence to build, which can be essential to project acceptance after completion.

(completed by a candidate taking a live paper under exam conditions)

Question 9

Learning outcome   Understand schedule and resource optimisation.

Question part (a)   Explain <u>two differences</u> between critical path and critical chain scheduling techniques.

Marks   20 marks (10 marks each)

Strong example answer

> Critical path is focused on the time element of a work package. Each work package will have a defined start time, end time, and duration. The work package should be completed within that allocated time window. Critical chain is focused on the resource available to complete the work package. The theory is that the work package should be started as soon as possible and finished as soon as possible to the agreed quality level, with the resource available.
>
> The critical path model has no buffer or slack that is purposely built into the model. The tasks are supposed to take the duration stated within the model, no more or less. Conversely the critical chain model reduced the amount of time given to a task, relative to critical path, but creates buffers or slack within the schedule to soak up any occasions where it is needed. This theory reduces any potential for team members to potentially intentionally delayed starting a package of work. Critical chain has been shown to significantly reduce the duration of real world projects.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Weak example answer

> A critical path shows the tasks on a project that are most critical to its delivery. If these task are not completed on time the task will be delivered late and the project end date will move slip.
>
> A critical chain does not show float for the tasks on the project. The critical chain holds float as a buffer for the overall project.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Question part (b)	<u>Describe</u> how <u>three</u> different categories of resource can be allocated in an iterative life cycle.
Marks	30 marks (10 marks each)

Strong example answer

> In an iterative lifecycle the release of funds will be more frequent and in smaller chunks than in a linear lifecycle. This is because the project tasks will be delivered in iterations or timeboxes. At the start of each iteration the project manager will work with the product owner or sponsor to decide on what can be achieved and the costs are estimated and drawn down accordingly.
>
> In an iterative lifecycle, the people allocated to each iteration are fixed and within each iteration the people may fulfil multiple roles. If they have completed their own tasks within an iteration, they may pick up on different tasks in order to achieve the iteration's objectives. Having multi skilled resources will be useful to the project, it is also good for the individual in as much their own skills expand. Where tasks are outstanding in an iteration, they are returned to the backlog and the scope for the iteration adjusted rather than an increase in the number of people working on the iteration.
>
> In projects where there is a need for the supply of materials to support the scope of work, it is important to have the materials available when they are needed. Likewise, it is not cost efficient to buy in all the estimated materials at the start of the project, particularly in an iterative lifecycle as the scope is less defined. Therefore, the project manager and sponsor/product owner need to review the backlog of scope ahead of time to ensure that the materials to support the work are ordered and delivered in time for the iteration that requires it. By doing this well, there is less waste of materials and less materials sitting around waiting to be used.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Weak example answer

> Resources can be defined as people or materials. During an iterative life cycle the resource requirements will change to complete different activities. Three different categories of resource allocated in the iterative life cycle could be:
>
> 1. Resource staff to carry out "sprint" tests, evaluate risks, quality etc.
>
> 2. Materials such as building materials to build a house
>
> 3. Staff resources could split tasks and share specialist knowledge to complete.
>
> *(completed by a candidate taking a live paper under exam conditions)*

Question 10

Learning outcome   Understand how organisations and projects are structured.

Question part (a)   <u>Describe two</u> benefits of having an embedded project management office

Marks   20 marks (10 marks each)

Strong example answer

An embedded PMO delivers its functions under the control of the project manager and therefore they are dedicated to the project. The benefit of this is that they are always available to support the project. They can do this by collecting, analysing and putting together reporting information for the project which will save the project manager's time as all they will need to do is confirm that the information is as expected before reporting it outwards. By being embedded in the project the PMO will know all the sources of data as well as being included within project meetings and therefore the messaging and communications provided by them will be insightful and fully aligned to the project's goals, ensuring clarity and consistency of information to the project manager.

If the project is large enough then the embedded PMO may also include specialist skills to support the project delivery. One of the roles they could perform is a risk manager. The benefit of the risk manager on the project is to ensure that the risk process to be followed by the project, is being followed. The risk manager will maintain the risk registers by discussing the agreed actions with the risk and action owners to check on progress. This will benefit the project by ensuring that risk actions are being implemented and if they haven't worked as planned, this can be flagged up to the project manager and team for further consideration and response setting. By actively managing the risk process in this way it supports the generation of realistic plans and improves the chances of project success.

(completed by a subject matter expert within exam like conditions)

Weak example answer

<u>An embedded project office</u>

Gives a "home" for project managers to go to once their project is complete. In this way project managers do not need to find another project for them to do by themselves but can rely on others to do this for them.

Provides standards for project managers to follow on all projects to which they are assigned. This means that project managers do not need to develop the principles or context for all the projects they work on but must use an "off the shelf" solution.

(completed by a subject matter expert within exam like conditions)

Question part (b)   Explain <u>three differences</u> between the following types of organisational structure:
- Functional
- Matrix

Marks   30 marks (10 marks each)

Strong example answer

A functional organisation is a traditional hierarchical organisation with direct supervision that is grouped into departments/functions which people are grouped together who have similar skills and are kept in groups. For example, the sales department, the finance department, the software department or the marketing department.

A matrix organisation is a combination of a number of organisational structures (functional, project, divisional, flat, the most common being a matrix organisation with a functional and project organisation embedded in such an organisation the supervision/responsibility is shared by the functional managers and the project managers.

Three differences between the two are:

i.   Flow of authority/responsibility.

Within a functional organisation the authority flows downwards with the functional manager responsible for their department only. In a matrix organisation the functional managers maintain responsibility for their departments but work together with the project managers who have a project authority that flows across the functions (i.e. sideways) to achieve the goals of a project. This shared authority will shift dependent on the type of matrix organisation, weak, balanced or strong. In the 1st authority lies with the functional manager and in the latter with the project manager.

ii.   Complexity

A functional structure is relatively simple and convenient to manage, being focussed on the delivery of a simple product line and normally located in one location. While a matrix structure is complex in nature due to the combination of two organisational structures (or potentially more) and the need for communication between them. The matrix structure lends itself to the delivery of multiple product lines, potentially across multiple locations and tend to be projectized.

iii.   Resource allocation

Within a functional structure resources are grouped within departments and allocated work by their functional manager, normally on a utilisation of bodies principle but in a matrix organisation skills are better utilised as the most appropriate/capable resources can be allocated to deliver the projects dependant on their needs and priority. This ability to utilise functional resource across a number of projects ensures their efficient use and is cost effective for the projects as they pay for the work they require only.

(completed by a subject matter expert within exam like conditions)

Weak example answer

A functional organisation has departments such as 'engineering', 'design', 'manufacturing' whereas a matrix organisation does not use these distinctions and puts all participants into a single group (the project) and the divisions instead are by WBS element or work-package. This enables much closer working and a 'holistic' approach to the project.

In a functional organisation employees may be working on many projects simultaneously (but still within their technical specialism), however in a matrix organisation participants are only likely to be working on a single project, any spare time used up by BAU (business as usual) tasks.

In a matrix organisation project managers and other project participants are at risk at the end of the project of not having any further work to do – in this case the organisation must create a project management office in order to assign work to these individuals. This is not the case in a functional organisation where individuals will automatically transition to a new project at the end of the current one.

(completed by a subject matter expert within exam like conditions)